

AD-A059 731

VALIDATED INSTRUCTION ASSOCIATES INC ALBION MI  
MASCULINITY, FEMININITY, AND THE WORKPLACE: A STUDY OF STEREOTY--ETC(U)  
AUG 78 K HINSDALE, J D JOHNSON

F/G 5/9

N00014-77-C-0625

NL

UNCLASSIFIED

1 OF 1

AD  
A059731



END

DATE

FILMED

12-78

DDC

AD A059731

LEVEL

12

67

MASCULINITY, FEMININITY, AND THE WORKPLACE:

A STUDY OF STEREOTYPES

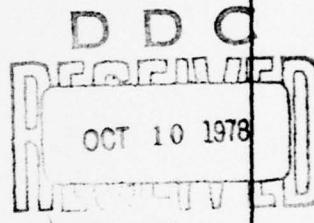
by

Kirsten Hinsdale  
J. David Johnson

DDC FILE COPY



VALIDATED  
INSTRUCTION  
ASSOCIATES  
Box 386  
Albion, Michigan 49224



This document has been approved  
for public release and sale; its  
distribution is unlimited.

78 09 26 033

⑥

MASCULINITY, FEMININITY, AND THE WORKPLACE:  
A STUDY OF STEREOTYPES.

⑫

⑩

Kirsten Hinsdale

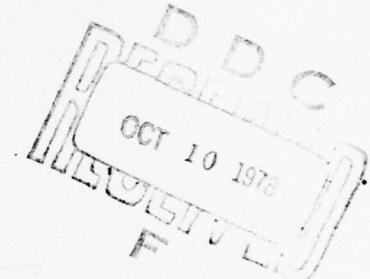
and

J. David Johnson

⑫

61p.

Validated Instruction Associates, Inc.  
Albion, Michigan 49224



ONR Technical Report #1  
⑪ August, 1978

⑨

Technical rept. no. 1 (Interim),

1 Aug 77-31 Aug 78

Reproduction in whole or in part is permitted for any purpose of the  
United States Government.

This research was sponsored by the Organizational Effectiveness Research  
Programs, Office of Naval Research (Code 452), under Contract No.

N 00014-77-C-0625

⑯

Approved for public release; distribution unlimited.

393 494

Gu

78 09 26 033

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

DD FORM 1473 EDITION OF 1 NOV 63 IS OBSOLETE  
1 JAN 73 S/N 0102-LF-014-6601

(5752)

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

## UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

20.

→ Subjects included 172 male and 172 female Navy enlisted personnel who were asked to describe the ideal and real Navy enlisted man, woman, and person on the 142 traits listed in the Broverman and Bem Sex Role Questionnaires. Two way analysis of variance and t-tests were used to analyze the data.

With respect to sex role stereotyping, it was found that males display a slight tendency to stereotype the ideal woman as appropriately less masculine than the ideal man. Females, on the other hand, appear to be more equalitarian in their perceptions, although they consider a small degree of role reversal desirable in the ideal woman. For both sexes, the overall frequency of sex role stereotyping appears to be greatly diminished by workforce participation.

The data on sex characteristic stereotyping indicated that both males and females view the real woman as more feminine--but not less masculine--than the real man. While more frequent than sex role stereotypes, sex characteristic stereotypes also appear to be reduced in number in the workforce.

From a larger perspective, it was found that even though masculinity is more highly valued than femininity in the ideal person, femininity too is highly valued, creating an androgynous ideal. The further data showed that the real woman more closely resembles this ideal than does the real man. While both real sexes are equally deficient in idealized masculinity, the real man also is deficient in idealized femininity.

It is concluded that stereotyping is much less evident in the workplace than in society in general and may have been overemphasized as a barrier to achievement in women. It also is concluded that the negative impact of many stereotypes of women may be lessened by the high value placed on traditionally feminine qualities.

Recommendations are made for future research to determine if the professed equalitarianism of working women and men is evident in their behavior in actual work situations. Additional research also is required to determine if androgyny is a pragmatic goal for individual workers--that is, the extent to which this hypothetical ideal is associated with real occupational success, adjustment, and achievement.

S/N 0102-LF-014-6601

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

#### ACKNOWLEDGMENTS

The authors would like to thank Dr. Robert Hayles of the Office of Naval Research for bringing to our attention many new developments in our area of investigation, for facilitating communication among the numerous investigators engaged in related research under the auspices of ONR, and for giving freely of his expertise in matters theoretical. We further express our gratitude to David Koether, the Research Assistant who coordinated and conducted the data collection effort; to Dr. James W. Cook, who painstakingly edited the manuscript; to Marlene Plassman and Judy Johnson, for collecting research references; and to our Navy contact people, CDR Phil Alvarado, LCDR Joyce Kilmer, LT Pat McCabe, and LCDR Janet McGalin, who graciously provided facilities and arranged access to the research sample.

Kirsten Hinsdale  
J. David Johnson

ACCESSION for	
NTIS	White Section <input checked="" type="checkbox"/>
DDC	DDN Section <input type="checkbox"/>
UNANNOUNCED <input type="checkbox"/>	
JUDIFICATION	
.....	
BY	
DISTRIBUTION/AVAILABILITY CODES	
DATA	SC. CIAL
A	

## PREFACE

In recent years, a number of social scientists have called for research into the situational determinants of behavior, especially as they relate to women at work (e.g., Condry and Dyer, 1976; Darley, 1976; Terborg, 1977). In response to this need, the Hinsdale-VIA Psychosocial Model of Defeat (Hinsdale, Note 1) provides a logical framework within which research into the behavior of working women and men systematically can proceed.

However, as Ilgen and Terborg (1975) and Spence and Helmreich (1978) point out, prior to studies of behavior it is useful and appropriate to measure the psychological constructs (attitudes, motives, traits) on which behavior presumably is based. Critics of this theoretical approach (e.g., Mischel, 1977), have attacked it on the grounds that behavior is highly situation-specific. Still, a growing body of evidence suggests that many psychological constructs are in fact relatively stable predispositions which are both directly related to observable behavior and which have some degree of cross-situational validity (e.g., Bem, 1977; Fishbein and Ajzen, 1974; Terborg and Ilgen, 1975).

The Hinsdale-VIA Psychosocial Model of Defeat holds that one of the major predispositions underlying behavior at work is sex stereotyping, or widely held beliefs about the traits and behaviors appropriate to or characteristic of the sexes. Thus, as a precursor to direct investigation of the model, the purpose of this first unit of research was to obtain measures of sex stereotyping among populations of working women and men in the Navy.

## CONTENTS

INTRODUCTION .....	1
METHODS .....	12
Sample .....	12
Instruments .....	12
Procedures .....	15
Analyses .....	15
STEREOTYPES OF THE IDEAL WORKING MAN AND WOMAN .....	18
Results and Discussion .....	18
Conclusions .....	26
STEREOTYPES OF THE REAL WORKING MAN AND WOMAN .....	28
Results and Discussion .....	28
Conclusions .....	35
MASCULINITY, FEMININITY, AND THE WORKPLACE .....	36
Results and Discussion .....	36
Conclusions .....	39
THE REAL VS. THE IDEAL .....	40
Results and Discussion .....	40
Conclusions .....	41
GENERAL CONCLUSIONS AND IMPLICATIONS .....	42
FOOTNOTES .....	44
REFERENCE NOTES .....	45
REFERENCES .....	46
DISTRIBUTION LIST .....	51

How can you tell a businessman from a businesswoman? According to one observer of the office scene, it's easy: a businessman is aggressive, but a businesswoman is pushy; he is careful about details, but she is picky; he's decisive, but she's prejudiced; he's a leader, but she's a tyrant, and so on.<sup>1</sup>

Implicit in each of these statements is the assumption that simply by virtue of being competent, the working woman transgresses certain invisible boundaries for sex appropriate behavior, and thus becomes a victim of sex role stereotyping. The clear implication is that different standards exist for the behavior of women and men at work--that many behaviors appropriate to males are inappropriate to females, and vice versa.

Certainly, this has become a common theme in the research literature in recent years. On a theoretical level, it often is held that to the extent that members of a given organization subscribe to different sex role standards, working women encounter social approval for displaying traditionally feminine traits such as nurturance, compassion, and emotional sensitivity, and social disapproval for displaying traditionally masculine traits such as ambition, competitiveness, assertiveness, and independence (Condry and Dyer 1976; Darley, 1976; Hinsdale and Cook, 1978; Hinsdale, Note 1). Since these and other masculine competencies are strongly associated with success in the workplace (Darley, 1976; Schein, 1973, 1975; Sherman, 1976; Stogdill, 1974), this double standard for sex appropriate behavior places the working woman at a distinct disadvantage. In fact, as an evolving body of literature suggests, she may find herself in a double bind: if she displays traits consistent with the feminine sex role, she may be rejected as an incompetent worker, but if she acts according to the masculine role, she may be rejected as unfeminine.

(Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz, 1972; Putnam and Heinen, 1976; O'Leary, 1974; Hinsdale, Note 1). Because of this, standards for sex appropriate behavior often are cited as the most severe single barrier to occupational achievement in women (Bem and Bem, 1970; Orth and Jacobs, 1971; Terborg and Ilgen, 1975).

In view of the seriousness of these charges, there exists a surprising lack of research directly addressing sex role standards and stereotypes as they are manifest in the workplace. While several studies have established the existence of fundamental distinctions between the traits desired in the ideal American male and female (Bem, 1974; Broverman, Broverman, Clarkson, Rosenkrantz, and Vogel, 1970; Jenkin and Vroegh, 1969; Neulinger, 1968; Spence, Helmreich and Stapp, 1974), we know of no comparable data gathered from working populations on the ideal working male and female. Thus, the extent to which sex role standards carry over into the workplace is virtually unknown, despite the frequency with which they are invoked to explain women's achievement related difficulties.

Instead, what data there are to support the existence of separate sex role standards for working populations are largely inferential. A number of behavioral studies have established, for example, that both males and females discriminate against competent women, possibly because they pose a greater threat than competent men (Hagen and Kahn, 1975), that women are perceived as out of role when they use threatening behaviors (Rosen and Jerdee, 1975), and that men are viewed as more effective using masculine "initiating structure" behaviors, while women are viewed as more effective using feminine "consideration" behaviors (Bartol and Butterfield, 1976; Petty and Lee, 1975). Similarly, it has been shown that women are evaluated negatively for using a firm, authoritative style, especially with male

subordinates (Jacobson, Antonelli, Winning, and Opeil, 1977), and that women more often are criticized as followers than as leaders, presumably because women are expected to be better followers than men, who, conversely, are expected to be better leaders (Jacobson and Effertz, 1974).

Certainly, these behavioral findings imply that standards for sex appropriate behavior carry over into the workplace. In keeping with the "double bind" theory, they suggest that femininity and competence are incompatible--if not mutually exclusive--and point out the negative consequences for women who deviate from what is considered to be appropriate feminine behavior.

A number of attitudinal studies also support the existence of sex role stereotypes--and by inference, sex role standards--in the workplace. It has been shown, for instance, that both sexes are less satisfied with female supervisors (Hansen, Note 2), that competent women are viewed as less attractive than their less competent counterparts (Spence and Helmreich, 1972), and that negative attitudes toward women in management are widespread and persistent (Basil, 1972; Bowman, Worthy, and Greyser, 1965). It further has been demonstrated that women who function with unambiguous competency do so at the cost of some perceived measure of femininity (Silverman, Shulman and Weisenthal, 1972), and that as women increase in expertise and authority, they risk losing friendship and respect (Miller, Labovitz, and Fry, 1975).

Like the empirical studies overviewed above, these attitudinal studies support the double bind theory of women and work. Apparently, both the attitudes and behaviors of others in the organization may exert pressure on the working woman to remain within the confines of sex appropriate behavior. Moreover, in studies where females have been included in the sample (Goldberg, 1968; Rosen and Jerdee, 1973, 1974; Schein, 1975), the

weight of the evidence suggests that they are at least as inclined as males to display discriminatory attitudes and behaviors.

Given this accumulating body of data implying the existence of sex role standards in the workplace, it seems particularly appropriate to investigate directly the nature and severity of the standards themselves. Thus, one purpose of this study was to investigate the extent to which populations of working women and working men subscribe to sex role standards, or to stereotypic perceptions of the appropriateness of different traits for the sexes. In keeping with the research on more general populations, the first hypothesis of the study was that stereotypically masculine and feminine traits are differentially valued in the ideal working woman and working man, thereby suggesting the existence of a double standard for sex appropriate behavior in the workplace.

A second purpose of the study was to investigate the extent to which stereotypically masculine and feminine traits are differentially ascribed to working women and working men. Unfortunately, this distinction--i.e., between the traits differentially valued in and those differentially ascribed to the sexes--is one which historically has not been made in the research on sex roles and stereotyping. To remedy this deficiency, Terborg (1977) discriminates between sex role stereotyping and sex characteristic stereotyping. The former refers to widely held beliefs concerning the traits and behaviors appropriate to women and men; the latter refers to widely held beliefs concerning the traits and behaviors characteristic of women and men. For example, an individual who believes that women ought to be less aggressive than men is engaging in sex role stereotyping; an individual who believes women are less aggressive--i.e., that they are less capable of aggression--is engaging in sex characteristic stereotyping.

This conceptual distinction is critical both to understanding stereotyping and to treating the problems it causes. One might expect sex role stereotypes, which reflect deeply rooted cultural values (Barry, Bacon, and Child, 1957; Bem and Bem, 1970; Haavio-Mannila, 1975) to be more rigid and resistant to change than sex characteristic stereotypes, which simply may reflect inaccurate or incomplete information, or actual observed differences in the behavior of the sexes (Schein, 1971; Terborg, 1977).

When the distinction between sex role and sex characteristic stereotypes is taken into account, it becomes apparent that the two types of stereotyping frequently are confounded in both experimental studies and attitudinal scales. Thus, the type of construct being measured often is ambiguous. For instance, it is impossible to determine whether male managers' preference for promoting males over equally qualified females (Rosen and Jerdee, 1975) or male executives' unfavorable attitudes toward women executives (Bowman *et al.*, 1965) are caused by a belief that women are less capable than men or a belief that women should remain within societal boundaries for sex appropriate behavior. As a result, the ill-defined notion of "stereotypes" usually is employed indiscriminately to explain findings such as these.

Allowing for this distinction between the two types of stereotyping, a review of the research reveals that many of the studies which purport to address sex role stereotypes of women at work in fact deal with sex characteristic stereotypes. For example, Basil's (1972) findings that working women are described as more emotional and less rational than men reflect sex characteristic stereotypes, as do the findings of Bass, Krusell and Alexander (1971), which show that working women are perceived as less reliable and lacking in supervisory capabilities. On the other hand,

those studies which demonstrate the conflict between femininity and competence (Epstein and Bronzaft, 1974; Gordon and Hall, 1974; Silverman, 1972) imply the existence of sex role stereotypes.

Because so much of the research literature on stereotypes of working women does address perceived actual differences between the sexes, a great deal more inferential support exists for the pervasiveness of sex characteristic stereotyping than for sex role stereotyping in the world of work. Thus, claims to the effect that sex characteristic stereotyping accounts for the achievement related difficulties of working women rest on somewhat firmer ground than do similar claims with respect to sex role stereotyping.

However, as with the latter area of investigation, the research on sex characteristic stereotyping is characterized by a conspicuous absence of psychological theory which might accommodate various findings; exhaustive studies of this form of stereotyping, as it applies to the workforce, simply have not been conducted. Again, what data do exist concern more general populations. While several researchers have found that various traits distinguish between the "typical" or "real" American man and woman, and that these parallel the traits differentiating the ideal man and woman (Bem, 1974; Rosenkrantz, Vogel, Bee, Broverman, and Broverman, 1968; Schein, 1973, 1975; Spence, Helmreich and Stapp, 1974, 1975), similar data have not been gathered on working populations.

Clearly, additional research must occur before stereotypic distinctions between the "real" sexes can be generalized to the workplace. It is quite possible, for example, that in having increasingly shed their stereotypic roles as wives and mothers and moved into nontraditional jobs and high echelon positions in the workforce, women also have negated many common sex characteristic stereotypes--e.g., that they are less capable and reliable

and more emotional than men. Indeed, there is some evidence to indicate that stereotyping decreases with increased information about and exposure to female coworkers and supervisors (e.g., Bowman *et al.*, 1965; Ruhe and Guerin, 1977; Schein, 1975; Terborg and Ilgen, 1975).

However, despite this, most research--on both working populations and more general populations--points to the widespread sex characteristic stereotyping of women. Thus, the second hypothesis of the present study was that stereotypically masculine and feminine traits are differentially descriptive of the real working woman and working man, suggesting that the fundamental distinctions made between the sexes in the larger society carry over into the workplace.

It should be noted at this juncture that by virtue of investigating stereotyping in the workplace, the present study raises two larger issues. First, apart from differences in the traits valued in working women and men, to what extent, overall, are the stereotypic dimensions of masculinity and femininity valued in the workplace? And second, to what extent do real working women and men display masculinity and femininity in the valued proportions?

Answering these questions will help place in perspective both sex role and sex characteristic stereotypes of working women and men. For example, to the extent that femininity is valued in the workplace, traditional stereotypes may be less damaging to working women than previously believed. Conversely, to the extent that masculinity is valued to the exclusion of femininity, stereotypes may, as so often is contended, place the working woman at a distinct disadvantage.

While it seems only fair and logical to raise these larger issues in the context of this study, they have for the most part been ignored in previous research. This has been as much a result of methodological

as theoretical considerations. In the past, studies of stereotypic masculinity and femininity have focused on differences between the sexes rather than pointing out their frequently remarkable similarities. By defining stereotypes in terms of significant differences on individual traits, these studies often have failed to review the relative and absolute values placed on these traits or on masculinity and femininity as unified entities.

However, as Stricker (1977) has pointed out, the ideal personalities which emerge from most studies tend to be highly androgynous--i.e., to possess masculine and feminine traits in nearly equal degrees. Thus, the differences between the sexes, despite frequent claims to the contrary, appear to be differences in degree, rather than in kind; and from a more general perspective, both masculinity and femininity appear to be highly valued. If this holds true for the workforce, it is altogether possible that stereotypes of the real woman may in some cases favor women over men. For example, if a relatively high value is placed on nurturance, and women are stereotyped as more nurturant than men, this stereotype may operate to the benefit of working women.

Judging from previous findings, though, this seems unlikely. A number of researchers have established the relatively higher valuation of men and masculinity over women and femininity in American society (McKee and Sheriffs, 1957, 1959; Prather, 1971; Sheriffs and Jarrett, 1953; Smith, 1939). It further has been held that this higher valuation of masculinity is especially exaggerated in our work institutions (Darley, 1976; Polk, 1974; Zellman, 1976).

Because of this, there seems to exist a masculine model for success in the occupational world to which both males and females must aspire to move from subordinate to leadership positions (Hennig, 1971; Loring and Wells, 1972; O'Leary, 1974; Schein, 1973, 1975). Although an increasing

body of evidence suggests that both masculine and feminine characteristics are integral to a well-developed personality (Bem, 1974, 1975; Constantinople, 1973; Spence and Helmreich, 1978), androgyny typically is not viewed as a valid model for working women and men. Instead, femininity and career competence are viewed as competing qualities (e.g., Sherman, 1976), and it has been contended that to the extent that a woman's self-image incorporates the feminine sex role, she is unlikely to acquire the characteristics associated with achievement in the workplace (Korman, 1970; Schein, 1972).

Contrasting with these suppositions are certain preliminary findings which suggest that some traditionally feminine behaviors are adaptive in the workplace. For example, "providing consideration," "intimacy," and "peer support" each have been positively related to worker satisfaction (Petty and Lee, 1975; Roussell, 1974; Durning and Mumford, Note 3). In addition, it has been demonstrated that in tasks requiring cooperation for success, women tend to outperform males by using accommodative rather than exploitative strategies (Bond and Vinacke, 1961). In a more general vein, several studies show that a number of qualities typically ascribed to women characterize the successful manager, such as being intuitive, helpful, and aware of the feelings of others, and having finely honed interpersonal skills and humanitarian values (Schein, 1975; Spence and Helmreich, 1978).

These studies raise some intriguing possibilities for the valuation of femininity in the workplace. However, probably the most substantive evidence in this regard is provided by Stogdill (1974), who in reviewing studies of leadership and management conducted since 1906 concludes that "followers tend to be better satisfied under a leader skilled in human relations rather than under one skilled in the group task" (p. 419). He goes on to point out that people-oriented behaviors, as opposed to work-oriented behaviors, are consistently related to group cohesiveness and

follower satisfaction. This is especially true for behaviors showing concern for followers' welfare and comfort. Although Stogdill does not label these behaviors as specifically feminine, they are consistent with the expressive, affective, and nurturant behaviors which, according to an abundance of data, are generic to the feminine domain (e.g., Broverman *et al.*, 1970; Jenkin and Vroegh, 1969; Spence, Helmreich and Stapp, 1974).

In short, several studies imply that far from being liabilities, certain components of femininity are in fact assets in the workplace. But despite this encouraging trend, the bulk of the evidence still favors masculinity as more critical than femininity to career attainment. Thus, the third hypothesis of the present investigation was that masculinity is more highly valued than femininity in the ideal working person, sex unspecified. The fourth and final hypothesis was that the real working man more closely approximates the ideal working person than does the real working woman, reflecting the increased possession of masculine traits in the real man.

In sum, the research literature on stereotyping, as it applies to the workplace, has several conceptual flaws and shortcomings which must be resolved before the roles of masculinity and femininity at work are fully understood. These deficiencies should appropriately be addressed at this stage in the evolution of the research for two reasons. First, to understand the nature, pervasiveness, and rigidity of stereotyping in the workplace, sex characteristic and sex role stereotyping must be carefully disentangled and investigated. Second, to disprove or legitimize claims to the effect that stereotyping is largely responsible for the achievement related difficulties of working women, some effort must be initiated to test the widespread assumption that stereotypic masculinity is synonymous with success, while femininity is at best innocuous.

The research for the present study was conducted in the U.S. Navy, an institution whose predominantly male composition (approximately 95%) might

be expected to promote both sex stereotyping and subscription to the masculine model for success. The recent emphasis on the integration of women into nontraditional occupations in the military, and their possible expansion into combat-related positions (Binkin and Bach, 1977), makes investigation of the hypotheses of the current study in the U.S. Navy especially timely.

## METHOD

### Sample

The sample was composed of 344 Navy enlisted personnel from three locations in the continental United States: San Diego, California; Norfolk, Virginia; and Orlando, Florida. Subjects included 172 males and 172 females in the E-4 through E-9 paygrades. Their years in the service ranged from one to 30, with a mean of 11 years. 96.0% had at least a high school education, 43.0% had at least some college, and 3.5% had a college degree.

All subjects served in a supervisory capacity. The number of subordinates per subject ranged from one to 350, with a median of 3.06 male subordinates and .61 female subordinates.

Subjects were recruited by their individual commands according to their availability for participation in the study. They represented a wide variety of technical, scientific, labor, clerical, and other occupations typical of civilian organizations. None of the subjects was directly engaged in a combat-related position.

### Instruments

Both the Broverman Sex-Role Questionnaire (Broverman *et al.*, 1970) and the Bem Sex Role Inventory (Bem, 1974) were employed in the study to provide measures of sex role and sex characteristic stereotyping. The construct validity of both questionnaires was established in the course of their development and has been confirmed through additional investigation (see references below).

The first of the two instruments, the Broverman Sex-Role Questionnaire (shortened version), consists of 82 bipolar items, of which 11 are stereotypically feminine, 28 are stereotypically masculine, and 44 are neutral. Each item incorporates a seven point scale on which one and seven represent opposite poles on a single trait (*e.g.*, "not at all aggressive" and "very

aggressive"). The questionnaire has been employed for a variety of purposes, including studies of the traits characteristic of the adult man and adult woman, the ideal man and ideal woman, and the mentally healthy man, woman and adult (Elman, Press, and Rosenkrantz, 1970; Broverman *et al.*, 1970, 1972; Rosenkrantz *et al.*, 1968).

In the present study, the Broverman Questionnaire was employed to investigate the traits comprising the real and ideal Navy enlisted man, woman, and person. Accordingly, three separate instruction sets were devised, as follows:

We would like to know something about what you expect the ideal Navy enlisted man (woman, person) to be like. Imagine that you are going to meet this ideal Navy enlisted man (woman, person) for the first time. What sort of things would you expect? For example, what would you expect about his/her liking or disliking of the color red? On each scale, please put a slash (/) and the letter "I" above the slash according to what you think the IDEAL Navy enlisted man (woman, person) is like.

For example:

Strong dislike Strong liking  
for the color 1....2....3....4....5....6....7 for the color  
red red

Next, imagine the Navy enlisted men (women, people) you already know. Then put a slash and an "R" where you think the REAL Navy enlisted man (woman, person) falls on the scale.

For example:

Strong dislike R I Strong liking  
for the color 1...2...3...4...5...6...7 for the color  
red

On the following pages are a number of scales like the one above. Please place a slash and the letter "I" above the slash according to what you expect the ideal Navy enlisted man (woman, person) to be like, and a slash and an "R" above the slash according to what you think the real Navy enlisted man (woman, person) is like.

If you have any questions, do not hesitate to ask the monitor.

The second instrument employed in the study, the Bem Sex Role Inventory, or BSRI, is comprised of 60 traits, including 20 stereotypically masculine, 20 stereotypically feminine, and 20 neutral traits. The BSRI uses a seven point frequency scale ranging from "never or almost never true" to "always or almost always true." It most commonly is employed as a self-report measure, and has been used on a number of populations and in numerous studies relating self-reported traits to motivational and attitudinal measures, and to behaviors in experimental conditions (Bem, 1975, 1977; Bem and Lenney, 1976; Kipnis and Kidder, Note 4).

In keeping with the purposes of the present study, the BSRI was administered to each subject in conjunction with the Broverman Questionnaire and used to investigate the traits comprising the real and ideal Navy enlisted man, woman, and person. The three corresponding instruction sets were as follows:

**INSTRUCTIONS:** The purpose of this survey is to obtain more information on what you think the ideal Navy enlisted man (woman, person) is like. For each item, please specify the extent to which both the ideal and the real Navy enlisted man (woman, person) displays each of the traits listed by putting the appropriate number in the corresponding blank, as follows:

- 1 - Never or almost never true
- 2 - Usually not true
- 3 - Sometimes but infrequently true
- 4 - Occasionally true
- 5 - Often true
- 6 - Usually true
- 7 - Always or almost always true

The inclusion of both instruments in the study was predicated on several factors, including their established construct validity and the large pool of items ( $n=142$ ) provided by the combined instruments and deemed appropriate to the exploratory nature of the study. In addition, the Broverman Questionnaire, because the items are bipolar, allowed for the possibility that socially undesirable traits might be sex stereotypic more-

so than the BSRI, which includes relatively few negative traits. Finally, the simplicity and elegance of the BSRI scoring system (Bem, 1974) helped to enhance access to and manageability of the constructs being measured, and provided a means whereby the data from the current study might be compared to findings on more general populations.

#### Procedure

Subjects were convened in classroom settings at their respective commands in groups of eight to 30. The three forms of the combined questionnaires were randomly administered to respondents by sex and by paygrade. Each respondent received only one version of the combined questionnaires (man, woman, or person).

Subjects were asked to read the cover letter, which stated that VIA, Inc. "has been tasked with conducting research into the ideal Navy enlisted man (woman, person)," and which ensured the confidentiality of their responses. Subjects were then given general instructions on completing the background information and told that, since each of them had slightly different versions of the questionnaires, they should refer all questions to the monitor rather than discuss them among themselves.

Subjects were given one hour to complete the instruments and were asked to return them to the monitor as soon as they were finished. All subjects completed the questionnaire in advance of the allotted hour.

#### Analyses

Prior to investigation of the hypotheses, general indices of stereotypic masculinity and femininity were derived for the ideal and real man, woman, and person. This was accomplished, first, by deriving individual masculinity and femininity scores from the BSRI and the Broverman Sex-Role Questionnaire. These scores were computed by averaging the data from those items on each instrument which are identified in the research literature as stereotypically

masculine and feminine--i.e., as more socially desirable in one sex or the other<sup>3</sup> (Bem, 1974; Broverman et al., 1970). The resulting masculinity and femininity scores were then averaged to obtain the overall masculinity and femininity scores for each hypothetical personality.

Three levels of analysis were used in testing the first hypothesis. Initially, as a general test for differences in the masculinity and femininity scores of the ideal man, woman, and person, and to check for consistent differences in the responses of male and female subjects, a two-way analysis of variance was performed using a 2x3 design in which sex of respondent comprised one factor and the three ideal personalities comprised the other. This analysis was performed first on the masculinity scores and repeated for the femininity scores.

In the second level of analysis, a series of eight t-tests<sup>4</sup> were performed to make within and between group comparisons on the masculinity and femininity scores for the ideal man and woman. From these comparisons, differences in the ideal man and woman and in the responses of male and female subjects were isolated in relation to the dimensions of stereotypic masculinity and femininity.

In the third and finest level of analysis, t-tests were employed to make item-by-item comparisons between the ideal man and woman descriptions generated by male and female respondents. This analysis, which is similar to the most commonly used analytic approaches to stereotyping (e.g., Broverman et al., 1970; Spence, Helmreich, and Stapp, 1974), produced lists of traits differentially valued in the ideal man and woman--or male and female valued items. For the BSRI, these lists included only those items for which the mean value was above four on the unidirectional, seven point scale. However, since the Broverman Sex-Role Questionnaire items are

bipolar, scores approaching either pole were considered male or female valued if they were significantly closer to one of the poles for the ideal man or woman. In the event that the two scores approached opposite poles for the ideal man and woman, it was possible for opposite poles on the same item to be male and female valued.

These three levels of analysis were repeated to test the second hypothesis of the study, using the data on the real man, woman, and person. The only difference in the two sets of analyses was that in the latter set the item-by-item t-tests generated lists of male and female descriptive, rather than male and female valued, items. To classify items as male or female descriptive, the same criteria were used for the Broverman Questionnaire. However, on the BSRI, the items were considered male or female descriptive if they were significantly more strongly displayed by the real man or real woman, regardless of their absolute value.

The third hypothesis was tested by comparing the masculinity and femininity scores derived from the total sample for the ideal person, ideal man, and ideal woman. t-tests were used to determine if there were significant differences in the two scores for each of the three hypothetical personalities. In addition, to determine the relative proportion of masculine and feminine traits among the traits most highly valued in the ideal person, the twenty items with the highest mean ratings were selected and compared to the stereotypically masculine and feminine items identified by Bem (1974) and Broverman et al. (1970).

To test the fourth hypothesis, difference scores were derived by subtracting the masculinity and femininity scores for the real man and woman from those of the ideal person. t-tests were used to determine the significance of these scores. The results of these analyses are reported and discussed in the four ensuing sections addressing the study hypotheses.

## STEREOTYPES OF THE IDEAL WORKING MAN AND WOMAN

### Results and Discussion

The two-way analysis of variance on the data from the total sample provided virtually no support for the first hypothesis of the study--that stereotypically masculine and feminine traits are differentially valued in the ideal working man and woman. No significant differences were found among the three ideal personalities--man, woman, and person--on the dimensions of stereotypic masculinity  $[F(2,335) = 2.43, p > .05]$  or stereotypic femininity  $[F(2,335) = .75, p > .05]$ , suggesting that as a whole, traditional sex role standards do not carry over into the workplace. However, the analysis of variance did show significant differences on the masculinity and femininity scores generated by male and female respondents  $[F(1,335) = 4.53, p < .05]$  and  $F(1,335) = 5.78, p < .05$ , respectively], thereby opening the possibility that the sexes individually subscribe to different sex role standards.

Between and within group *t*-tests were used to investigate whether or not this indeed is the case. As shown in Table 1, several significant differences were found on the masculinity and femininity scores for the ideal man and ideal woman, both within and between the sexes.

Table 1

Comparison by Sex of the Masculinity and Femininity Scores  
of the Ideal Man and Woman

<u>Standard</u>	<u>Masculinity Scores (<math>\bar{x}</math>)</u>			<u>Femininity Scores (<math>\bar{x}</math>)</u>			<u>Difference p</u>
	<u>Males</u>	<u>Females</u>	<u>Difference p</u>	<u>Males</u>	<u>Females</u>	<u>Difference p</u>	
Ideal Man	5.41	5.53	.12	.27	4.82	5.06	.24 .019
Ideal Woman	5.09	5.54	.45 <.001	4.86	5.05	.19 .04	
Difference	.32	.01		.04	.01		
p	.006	.88		.75	.91		

Several trends are evident in Table 1. First, the between sex comparisons pinpoint the nature of the disagreement between male and female respondents. Masculinity in the ideal woman appears to be most strongly at issue between the sexes; males believe the ideal woman should be significantly less masculine than do females  $[t(115) = 3.91, p < .001]$ . To a lesser extent, the sexes also disagree on the amount of femininity appropriate to the two hypothetical personalities. In both cases, females are proponents of increased femininity  $[t(110) = 2.37, p < .05]$  for the ideal man and  $t(110) = 2.08, p < .05$  for the ideal woman.

The within sex comparisons shown in Table 1 further elucidate the nature of the sex role standards subscribed to by male and female subjects. The data show that while female respondents consider the ideal man and woman to be virtually indistinguishable in terms of stereotypic masculinity  $[t(111) = .15, p > .05]$  and femininity  $[t(111) = .12, p > .05]$ , males characterize the ideal woman as significantly less masculine than the ideal man  $[t(114) = 2.83, p < .01]$ .

Taken together, these findings stand in clear contrast to earlier studies, which generally show widespread agreement between the sexes on

more differentiated sex role standards (e.g., Bem, 1974; Broverman et al., 1970, 1972). Instead of consensually endorsed norms for sex appropriate behavior, they point to a tendency for women to be equalitarian in their perceptions of the ideal man and woman, but for males to subscribe to stereotypic sex role standards, particularly where masculinity in the ideal woman is concerned.

To explore the nature of these sex role standards, t-tests were used to make item-by-item comparisons of the 138<sup>3</sup> items in the ideal man and woman descriptions generated by male respondents. The male and female valued items which emerged from this analysis are presented in Table 2.

Table 2  
Sex Role Stereotypes of Male Respondents

Male Valued Items	Female Valued Items
Almost always hides emotions	Does not hide emotions
Very aggressive*	Tender
Very independent*	
Likes math and science very much	
Very strict	
Very skilled in business	
Very willing to accept change	
Never gives up easily	
Very self-confident	
Very ambitious	
Athletic	
Has leadership abilities	
Makes decisions easily	
Dominant	
Willing to take a stand	
Acts as a leader	

\* These items showed significant differences in the same direction on both the Broverman Questionnaire and the BSRI.

Of the items shown on Table 2, six are significant at the .01 level, and the remainder at the .05 level.

It should be stressed prior to discussion of Table 2 that the sex role standards implicit in these findings represent differences in degree, rather than in kind; the average discrepancy for the items achieving

significance was only .60 on a seven point scale. Thus, for example, while the ideal man is viewed as significantly more aggressive than the ideal woman, the ideal woman also is somewhat aggressive ( $\bar{x} = 5.12$  v. 4.63).

Still, to the extent that distinctions between the ideal man and woman do exist, they are reflective of differential sex role standards. Moreover, since stereotypes traditionally have been defined as statistically significant differences in personality profiles for the sexes, each of the items in Table 2 may be interpreted to reflect male respondents' sex role stereotypes of the ideal woman.

In view of this, it is apparent in Table 2 that male respondents perceive the ideal man and woman as appropriately differentiated along traditional lines. The male valued items generally reflect the traditionally masculine "competency cluster" identified by Broverman *et al.* (1972). Insofar as the ideal woman possesses these traits to a lesser degree than her masculine counterpart, they clearly point to stereotypic perceptions of the ideal woman as less competent than the ideal man. These findings are consistent with previously discussed behavioral findings which suggest that a threat is imposed by the too competent female (e.g., Hagen and Kahn, 1975). Apparently, there is some small area of the masculine domain which men prefer to reserve exclusively for the ideal man.

The two female valued items in Table 2 also are consistent with the traditionally feminine "warmth-expressiveness" cluster identified by Broverman *et al.* (1972). Generally speaking, however, there is a remarkable absence of female valued traits in this table. The preponderance of male valued items indicates, in keeping with the between group *t*-tests, that male respondents tend to stereotype ideal woman as less masculine, but not more feminine, than her masculine counterpart. Thus, the sex role standards of male

respondents appear to have only stereotypic masculinity as their pivotal point.

In addition to the items shown in Table 2, the t-tests revealed that two socially undesirable items (i.e., items for which both means were below four) are less strongly tolerated in the ideal man than in the ideal woman. These were "shy" ( $\bar{x} = 2.42$  v.  $3.25$ ,  $p < .05$ ) and "unpredictable" ( $\bar{x} = 2.42$  v.  $3.25$ ,  $p < .05$ ). These findings denote a small tendency for males to project somewhat more stringent standards for the ideal man than the ideal woman.

On a larger scale, what was most noteworthy about the t-test results was the relatively low number of items which differentiated at all between the ideal man and woman; only 21 of the pool of 138 items--74 of which previously have been identified as stereotypic--achieved significance. This suggests that there has been a blurring of the lines traditionally drawn between the traits appropriate to and valued in each gender. Thus, while some residuum of previously established sex role standards exists in the minds of male respondents, they seem to have been in large part mitigated, possibly because of the demands of the workforce for competent females as well as competent males.

If this may be concluded for the male sample, it may be said to be doubly true for the female sample. The t-tests on the ideal man and woman described by female respondents yielded only five female valued items and six male valued items. These are shown in Table 3.

Table 3  
Sex Role Stereotypes of Female Respondents

Male Valued Items	Female Valued Items
Does not hide emotions	Almost always hides emotions
Doesn't care about being in a group	Greatly prefers being in a group
Very rarely takes extreme positions	Very frequently takes extreme positions
Yielding	Not at all emotional
Athletic	Very skilled in business
Warm	

Of the items shown in Table 3, two were significant at the .01 level, and the remainder at the .05 level. The mean discrepancy score was .62, roughly comparable to that for male respondents.

Beyond this, however, the similarity of the male and female samples ceases. As is immediately apparent in Table 3, most of the female and male valued items are not intuitively stereotypic, and several are in fact counter-stereotypic. For example, three of the five female valued items--"not emotional," "hides emotions," and "very skilled in business" previously have been identified as stereotypically masculine, and a fourth--"very frequently takes extreme positions"--is certainly consistent with traditional definitions of masculinity. Of particular interest is that two of these items relate to emotionality, implying that it is especially adaptive for the ideal woman to suppress emotionality and thereby break the commonly held stereotype of woman as appropriately more emotional than men--a stereotype in fact held by male respondents (*cf.* Table 2).

Practically the converse of the female valued items is evident in the male valued items. Four of the six traits shown are consistent with

traditional femininity, including "does not hide emotions," "very rarely takes extreme positions," "yielding," and "warm." Only one male valued item, "athletic," is stereotypically masculine.

Taken together, these findings indicate that females find a small degree of role reversal desirable in the ideal man and woman. The ideal man differs by virtue of being more nurturant and emotional, while the ideal woman more strongly displays traits consistent with the role of achiever in the occupational world. Thus, there is evident in the perceptions of female subjects a kind of "Demosthenes effect," in which the ideal woman must attempt to overcome common stereotypes of women by being both slightly more masculine and slightly less feminine than the ideal man.

Beyond this tendency toward role reversal, the t-test results presented something of a paradox. Specifically, it was found that women are more likely to tolerate certain negative traits in the ideal woman than in the ideal man--in this instance, including shyness ( $\bar{x} = 3.02$  v.  $2.49$ ,  $p < .05$ ), gullibility ( $\bar{x} = 2.41$  v.  $1.70$ ,  $p < .01$ ), jealousy ( $\bar{x} = 2.48$  v.  $1.96$ ,  $p < .05$ ), and conceit ( $\bar{x} = 2.45$  v.  $1.86$ ,  $p < .01$ ). While these findings are consistent with those from male respondents, they shed some suspicion on the thesis that the ideal woman must attain higher standards than the ideal man, or prove herself, as it were. So does the increased extent to which the ideal woman "prefers being in a group" (cf. Table 3), which obviously is congruent with the frequent distinction made between women's need for affiliation as opposed to men's need for achievement (e.g., Hoffman, 1972; Walberg, 1969).

In short, some seemingly contradictory findings emerged from this set of t-tests. However, when the data from females are compared to the data from males, two things become clear. First, unlike males, females do not differentiate between the ideal sexes along traditional lines; and

second, they are less likely to differentiate between them at all. Only 12 of the 138 items on the combined Broverman and Bem Questionnaires showed significant differences between the ideal man and woman for female respondents, as compared to 22 items for male respondents. Thus, the distinction made between the traits valued in men and women is somewhat less divisive for females, as well as quite different in nature.

### Conclusions

The most important findings from this portion of the study can best be summarized as follows: While the small distinction male respondents make between the ideal man and woman follows traditional lines, the even smaller distinction made by females is largely counterstereotypic. Although males stereotype the ideal working woman as less masculine than the ideal man, females describe this personality as slightly more masculine and slightly less feminine, possibly because of a perceived need to counteract men's stereotypes or to compensate in some way for their sex.

It may be concluded from these findings that only minimal support is provided for the first hypothesis of the study. Comparatively few stereotypic traits are differentially valued in working women and men, and the general severity of sex role stereotyping appears to be greatly diminished by work-force participation. As a result, the case for a double standard for sex appropriate behavior in the workplace is largely unsubstantiated, and the use of sex role stereotypes to explain women's failure to achieve equal status seems, at best, questionable.

Despite this, however, the possible damaging effects of sex role stereotyping of any magnitude should not be underestimated. Because there is ample evidence to suggest that behavior in hypothetical and actual situations may be quite different (Campbell, 1963; Miller, 1972; Wicker, 1969), the absence of more definitive results in support of the first hypothesis may have been in large part a function of the nonthreatening

circumstances under which the data were collected--circumstances which were notably devoid of negative consequences for professed equalitarianism. Since there also is evidence to indicate that whatever prejudice does exist is likely to result in discriminatory behavior (Triandis and Davis, 1965; Weitz, 1972), one might expect even the diminished sex role stereotyping evident among male respondents to be manifest in their behavior in actual work situations.

STEREOTYPES OF THE REAL WORKING MAN AND WOMAN

Results and Discussion

The two-way analysis of variance on the data from the total sample provided some support for the second hypothesis of the study--that stereotypically masculine and feminine traits are differentially descriptive of the real working man and woman. Significant differences were found among the three real personalities--man, woman, and person--on the dimensions of stereotypic masculinity  $[F(2,335) = 2.74, p < .05]$  and stereotypic femininity  $[F(2,335) = 31.67, p < .01]$ , as well as in the femininity scores generated by male and female subjects  $[F(1,335) = 4.82, p < .05]$ .

The between and within group  $t$ -tests further revealed that both male and female respondents tend to view the real woman as significantly more feminine than the real man. The results of this analysis are shown in Table 4.

Table 4

Comparison by Sex of the Masculinity and Femininity Scores of the Real Man and Woman

Description	Masculinity Scores ( $\bar{x}$ )				Femininity Scores ( $\bar{x}$ )			
	Males	Females	Difference	p	Males	Females	Difference	p
Real Man	4.17	4.44	.27	.032	3.94	3.81	.13	.27
Real Woman	4.17	4.37	.20	.11	4.47	4.45	.02	.88
Difference	0	.07				.53	.64	
p	.94	.58				<.001	<.001	

As shown in Table 4, the between sex differences in descriptions of the real man and real woman are minimal. The one difference which achieved significance was the masculinity score for the real man  $[t(115) = 2.17,$

$p < .05$  ], suggesting that females perceive the real man as significantly more masculine than do males.

More conclusive findings are apparent in the within sex comparisons, which show that both genders view the real woman as significantly more feminine than the real man  $t (114) = 5.44$ ,  $p < .001$  for male respondents, and  $t (111) = 4.99$ ,  $p < .001$  for female respondents ]. Surprisingly, no significant within sex differences were found on the masculinity scores of the real man and woman; apparently, both sexes believe that the two personalities closely approximate each other on the dimension of stereotypic masculinity.

Succinctly stated, the combined findings in Table 4 reveal that males and females are largely in agreement in stereotyping the real woman as more feminine than the real man, but that females disagree with males by showing a slight tendency to stereotype the real man as significantly more masculine than males view this personality.

These data are considerably more consistent with previous studies than the data on sex role stereotyping. Unlike the latter, they indicate widespread agreement between the sexes in differentiating the real man and real woman along stereotypic lines, at least where traditional femininity is concerned.

A comparison of Tables 1 and 4 shows how sex characteristic and sex role stereotyping further differ in their basic nature, severity, and scope. First, it is evident from the relative values of the within sex difference scores that sex characteristic stereotyping tends to be somewhat more severe than sex role stereotyping; the average difference score is .30 for the former as opposed to .10 for the latter. Second, it is apparent that females are more inclined to engage in sex characteristic stereotyping than are males (difference scores = .07 and .64 v. 0 and .53), who, conversely,

are more likely to engage in sex role stereotyping (.32 and .04 v. .01 and .01). Finally, it is clear that while the reference point for sex role stereotyping is masculinity (.32 and .01 v. .04 and .01), that for sex characteristic stereotyping is femininity (.53 and .64 v. .07). In other words, while only males display a relatively minor inclination to stereotype the ideal woman as less masculine than the ideal man, both genders, and especially females, show a somewhat greater inclination to stereotype the real woman as more feminine than the real man.

To investigate the specific sex characteristic stereotypes of male and female subjects, t-tests were used to isolate significant differences in their descriptions of the real man and real woman. It was found that males discriminated between the two personalities on 38 items, and females on 51 items in the pool of 138. These figures lend substantially more support to the second hypothesis than comparable data did to the first hypothesis. Clearly, they approach the proportion of stereotypic items found in more general populations (i.e., 74 of 138) more closely than do the numbers of sex role stereotypes (22 for males, 12 for females). Nevertheless, these figures present noteworthy reductions from the number of items previously established as stereotypic (38 and 51 v. 74). Thus, like sex role stereotyping, sex characteristic stereotyping appears to be less severe in the workplace than in society in general.

The results of the t-tests on the data from male respondents are shown in Table 5, which contains the twenty items whose mean scores most strongly differentiated the real man and real woman.

Table 5  
Sex Characteristic Stereotypes of Male Respondents

Male Descriptive Items	Female Descriptive Items
Almost always hides emotions	Does not hide emotions
Very reckless	Not at all reckless
Very aware of the feelings of others	Not at all aware of the feelings of others
Never cries	Cries very easily
Does not enjoy art and literature	Enjoys art and literature very much
Does not express tender feelings easily	Easily expresses tender feelings
Thinks men are superior to women	Does not think men are superior to women
•	
	Very talkative
	Very gentle
	Very interested in own appearance
	Very neat in habits
	Very intelligent
	Yielding
	Theatrical
	Flatterable
	Unpredictable
	Sensitive to the needs of others
	Compassionate
	Sincere
	Individualistic

Of the items shown in Table 5, eleven are significant at the .01 level, and nine at the .05 level. The mean discrepancy scores for all significant items was .65, suggesting that even though sex characteristic stereotypes are more frequent than sex role stereotypes, the same strong qualification should accompany their interpretation; namely, that they represent differences in the degree to which different traits are descriptive of the sexes, rather than differences in the traits themselves.

In Table 5, all of the male descriptive items, with the exception of "very aware of the feelings of others," are intuitively stereotypic, and in keeping with the image of the masculine male as nonemotional and lacking a certain finesse. On the other hand, the numerous female descriptive items are largely stereotypically feminine, with the three exceptions of "individualistic," "intelligent," and "does not think men are superior to women." It should be noted that while these results suggest the increased presence of traditional femininity--and especially emotionality--in the real woman, they do not in any way imply the absence of traditional masculinity, or the "competency cluster" in the real woman.

Still, the findings in Table 5 at first glance appear to be damaging to what males obviously consider to be the gentler sex; indeed, findings such as these, interpreted alone, appear to be highly prejudicial and often are held responsible for sex discrimination. However, the next series of t-tests showed that the data from females corroborate and expand upon those from male respondents. As is evident in Table 6, which contains the 20 items which for female respondents most strongly discriminated between the real man and woman, females also view the basic distinction between the sexes as following traditional lines. All differences shown in this table are significant at the .01 level.

Table 6

## Sex Characteristic Stereotypes of Female Respondents

Male Descriptive Items	Female Descriptive Items
Not at all emotional	Very emotional
Very dominant	Very submissive
Very active	Very passive
Very rough	Very gentle
Feelings not easily hurt	Feelings easily hurt
Not at all interested in own appearance	Very interested in own appearance
Feels very superior	Feels very inferior
Always sees self as running the show	Never sees self as running the show
Cold in relations with others	Warm in relations with others
Very uncomfortable when people express emotions	Not at all uncomfortable when people express emotions
Thinks men are superior to women	Does not think men are superior to women
Not at all uncomfortable about being aggressive	Cheerful Shy
	Theatrical
	Compassionate
	Sincere
	Eager to soothe hurt feelings

The mean discrepancy score for the 51 items which achieved significance in this analysis was .76--somewhat higher than the .65 for male respondents. It thus appears, in keeping with previous findings, that females are even more prejudicial in their perceptions of the sexes than are males.

As a result, what is most evident in Table 6 is females' obvious stereotyping of their own sex; on eight items, they are in agreement with male respondents (cf. Table 5), and the remainder are entirely consistent with common societal stereotypes of women. In fact, to the list of female descriptive items generated by the male sample, females added several items which might be construed to imply that women, but not men, view the real woman as more meek and humble than the real man--e.g., "submissive," "passive," "feels very inferior," and "never sees self as running the show."

Apart from women's stereotyping of women, a second, more subtle, theme is apparent in Table 6. This is the tendency, as established in the between group t-tests, for females to stereotype the real man as significantly more masculine--dominant, active, nonemotional--than the real woman. Clearly, female respondents ascribed many stereotypically masculine traits to the real man, several of which are quite unflattering.

From a more general perspective, what is remarkable about Tables 5 and 6, viewed together, is the emergence of a general theme which revolves around emotionality; most of the stereotypes of men relate to a relative absence of emotionality, while those of females point to a high level of emotionality, even though the pool of items in the questionnaires covered many more domains--e.g., the intellectual, attitudinal, and behavioral. Thus, there is a considerable narrowing of the form which sex characteristic stereotypes take in the workplace. First, they focus primarily on femininity, and within this boundary, focus again on emotion.

### Conclusions

In sum, it may be concluded that the data from both males and females provide partial support for the second hypothesis of the study. While neither sex sees the real woman as more or less masculine or competent than the real man, both see her as more emotional, warm, and nurturant than the real man who, in many cases, is relatively devoid of these traits. Thus, especially where traditional femininity is concerned, stereotypic traits are in fact differentially descriptive of the real working man and woman.

In the past, findings such as these have been interpreted solely in terms of their detrimental impact on working women. However, to focus on differences in the extent to which stereotypic masculinity and femininity are displayed by the sexes without reviewing their relative and absolute values is both incomplete and in itself biased. The sex role and sex characteristic stereotypes identified in this study are damaging to women only insofar as masculinity is valued and femininity devalued in the workplace. This issue was the subject of the next series of analyses.

## MASCULINITY, FEMININITY, AND THE WORKPLACE

### Results and Discussion

To investigate the third hypothesis of the study--that masculinity is more highly valued than femininity in the ideal working person, reflecting the masculine model for success--between group t-tests were conducted on the masculinity and femininity scores for the ideal man, woman, and person descriptions obtained from the total sample. The results are contained in Table 7.

Table 7

#### Comparison of the Masculinity and Femininity Scores for the Ideal Man, Woman, and Person

Standard	Masculinity Score	Femininity Score	Difference	p
Ideal Man	5.47	4.94	.53	<.001
Ideal Woman	5.32	4.95	.37	<.001
Ideal Person	5.48	4.93	.55	<.001

As shown in Table 7, the masculinity scores for each of the three hypothetical personalities--man, woman, and person--are significantly greater than the corresponding femininity scores; masculinity is indeed more strongly valued than femininity by the subjects in this study. Because of this, to the extent that the ideal woman possesses less masculinity than the ideal man and person ( $\bar{x} = 5.32$  and  $5.47$  v.  $5.48$ , respectively), she is handicapped as a member of the workforce--a substandard ideal, as it were. When seen from this vantage point, the sex role stereotypes of male respondents (*cf.* Table 4) take on strong negative connotations in terms of their potential harm to women's actualization as full, achieving members of organizations.

However, the data in Table 7 obviously fail to support the common conclusion that because stereotypic masculinity is a unique asset in the workplace, femininity is a unique liability. On the contrary, all three hypothetical personalities are highly androgynous.

Illustrating the androgynous nature of the ideal person are the ten sex-typed traits which were among the 20 traits most strongly displayed by the ideal person ( $\bar{x} = 6.31$ ). Six of these items are stereotypically masculine, including "self-reliant," "defends own beliefs," "has leadership abilities," "self-sufficient," "acts as a leader," and "ambitious;" and four are stereotypically feminine, including "sensitive to the needs of others," "understanding," "loyal," and "cheerful."

These findings cast a different light on the sex characteristic stereotypes identified earlier in the study; rather than pointing out the weaknesses of the real woman, these stereotypes may in some cases be pointing out her strengths. Both sexes, for example, agree in their assessment of the real woman as more "sincere," "gentle," "compassionate," and "sensitive to the needs of others" than her masculine counterpart (*cf.* Tables 5 and 6). Certainly, these are positive human qualities which may be just as easily viewed as unique competencies as unique deficiencies. In the past, they may have been devalued precisely because of their historical association with the feminine sex role.

To determine whether or not sex characteristic stereotypes have the same negative connotations as sex role stereotypes, a special analysis was conducted in which the mean scores for the ideal person were computed for the female descriptive items generated by male respondents (*cf.* Table 5) and the male descriptive items generated by female respondents (*cf.* Table 6). It was found that the ideal person's mean score for the twenty female descriptive items was 4.68, while the mean score for the twelve male

descriptive items was 4.00. Although this difference was not significant [ $t(30) = 1.64, p > .05$ ], these figures denote a distinct tendency for the ideal person to possess in greater degrees exactly the traits which in the past have been cited as stereotypic of, and therefore damaging to women. This implies that, on the whole, male subjects' stereotypes of the real woman are more flattering to women than female subjects' stereotypes of the real man are to men--at least in relation to the abstract ideal person.

Given these findings, it seems both inappropriate and invalid to cite sex characteristic stereotypes a major barrier to achievement in women, or to employ exclusively the masculine model for success as a normative framework for achievement. Clearly, the subjects in this study have questioned the narrow masculine model, and in so doing, seem to have invalidated the negative impact of many stereotypes of women. But more importantly, they have replaced the masculine model with a broader, more humanistic, androgynous model.

Further analysis showed that in this respect, this sample differs markedly from other populations. A comparison of the BSRI masculinity and femininity scores for the ideal man and woman to the social desirability ratings for masculinity and femininity in American males and females (Bem, 1974) indicated that the ideal man, and particularly the ideal woman, show striking deviations from previously established norms for sex appropriate traits. Specifically, it was found that whereas the mean masculinity score of the ideal man (5.82) closely approximates the social desirability ratings for masculinity in American males (5.59 and 5.83), the femininity score for the ideal man (4.93) far exceeds the social desirability of femininity in males (3.63 and 3.74). For the ideal woman, the same comparisons revealed a nearly complete role reversal: The ideal woman's mean femininity

score (4.95) was considerably lower than what is socially desirable for American females (5.61 and 5.55), while the mean masculinity score (5.61) was a great deal higher (2.90 and 3.46).

These comparative data highlight the enlightened thinking of study subjects. In defying what the research community has identified as normative for the idealized sexes, they aspire toward a convergence of the ideal man and woman on the dimensions of stereotypic masculinity and femininity. As shown in preceding sections, this is especially true for female respondents, who, in being more equalitarian in their perceptions than males, may well be the bearers of the new androgynous model into the workplace.

#### Conclusions

From this portion of the study, it may be concluded that some support exists for the hypothesis that masculinity is more highly valued than femininity in the ideal working person. Because of this, the few sex role stereotypes of male respondents may indeed be considered a barrier to achievement in women.

However, femininity also is highly valued. Thus, the sex characteristic stereotypes of the real woman as more feminine than the real man--stereotypes on which males and females agree--may be advantageous to women, and, on a larger scale, the validity of the masculine model for success is brought into question.

## THE REAL V. THE IDEAL

### Results and Discussion

To investigate the fourth hypothesis of the study--that the real working man more closely resembles the ideal working person than does the real working woman--between group *t*-tests were conducted on the masculinity and femininity scores of the real man, real woman, and ideal person, as shown in Table 8.

Table 8

Comparison of the Masculinity and Femininity Scores  
for the Ideal Person and Real Man and Woman

Score	Ideal Person	Real Man	Difference	p	Real Woman	Difference	p
Masculinity	5.48	4.31	1.17	<.001	4.27	1.21	<.001
Femininity	4.92	3.88	1.04	<.001	4.46	.46	<.001

Table 8 indicates that both the real man and woman fall short of the ideal person in terms of both masculinity and femininity. However, while the two personalities lack masculinity in nearly equal degrees (1.21 *v.* 1.17) the real man shows a much greater tendency than the real woman to lack the feminine traits characteristic of the ideal (1.04 *v.* .46).

These data show that to achieve their androgynous ideal, the task for working women is to cultivate additional masculinity in themselves; for working men, it is to cultivate a greater degree of femininity as well as masculinity. The obvious implication of these findings is that while both sexes have something to learn from their idealized role models in the realm of traditionally masculine competencies, there is something the real woman can share with the real man right now: traditionally feminine competencies. Again, it is suggested that the realization of an androgynous ideal in the workplace may well depend on working women.

Of further interest in Table 8, as noted earlier, the similarity of the real man and real woman in terms of stereotypic masculinity (4.31 v. 4.27). These data are consistent with a growing body of research literature which suggests that women who find themselves in male-dominated fields tend to take on the traits, attitudes, motives, behaviors, and styles of leadership characteristic of men (Morrison and Sebald, 1974; Ruhe and Guerin, 1977; Fitzpatrick and Cole, Note 5). Thus, beyond the problems encountered in gaining access to nontraditional positions, and beyond a natural selection process which prevents many women from pursuing them in the first place (e.g., Terborg, 1977), form seems to follow function: women are evidently quite capable of learning the competencies expedient to achievement in their organizations. In this study, women not only consider masculinity indispensable to the ideal woman, but also appear to be succeeding in its acquisition.

#### Conclusions

In this final portion of the investigation, the hypothesis that the real working man resembles the ideal working person more closely than does the real working woman is, in a word, disproved. In fact, the opposite of this hypothesis appears to be true. While both real sexes are deficient in the area of conventional masculinity, the real woman, but not the real man, approximates the ideal person in terms of femininity. More than any other findings in this study, these data speak on behalf of the notion that women bring into the workforce many highly desirable characteristics.

#### GENERAL CONCLUSIONS AND IMPLICATIONS

It may be concluded from this study, first, that the distinction between sex role and sex characteristic stereotyping is a useful one. The two forms of stereotyping differ in their basic nature, scope, and severity, as well as in the forms they take in the minds of males and females, which are at the very least, dichotomous, and at most, opposite.

It further may be concluded that both sex role and sex characteristic stereotyping are largely diminished by workforce participation. While the residual sex role stereotyping of male respondents may be viewed as potentially compromising to the working woman, the same may not be said for sex characteristic stereotypes, which are highly characteristic of the ideal working person. Certainly, future studies of stereotyping should take into consideration this larger picture; stereotypes are damaging only in relation to the absolute valuation of masculinity and femininity. To ignore this larger picture is to invite bias in data interpretation.

Unfortunately, this kind of bias appears to have been the norm in the research community in recent years. Often based on minimal findings, the case for pervasive and damning sex stereotyping in the workforce seems to have been vastly overstated. Clearly, stereotyping may exist more strongly in the minds of researchers than in the minds of working populations.

Unless, of course, the new consciousness tapped in this study is just that--a consciousness which does not yet translate into real behaviors in real work situations. In view of this possibility, the slight sex role stereotyping of male respondents should not be minimized in terms of its potential behavioral impact; neither should their professed equalitarianism be taken at face value. The desire for masculinity in the ideal woman does not mean that these male respondents would like to work with, or for,

this ideal woman; nor does it mean that they reward masculine competencies in their female subordinates or feminine competencies in their male subordinates. Additional research of a behavioral nature is needed to determine if, despite the encouraging findings of this study, the "double bind" theory of women and work nonetheless operates in actual work situations.

Further research also is warranted to determine how adaptive in the workplace masculinity and femininity are in terms of their concrete outcomes. While the ideal man, woman, and person described in this study are predictably utopian, working conditions seldom are. The surprising convergence of the ideal man and woman as they appear in these data and the suggested need for traditionally feminine competencies may mean little in terms of on-the-job behavior. As mentioned above, the case for form following function is a strong one; one might expect working women and men to cultivate androgyny in themselves only insofar as it proves useful. Thus, appropriate research questions now become: Does androgyny really work in the workplace? In other words, how well will the ideal person fare at work? How much will he/she achieve? How well adjusted will he/she be? And which components of traditional femininity and masculinity will help and hinder career advancement?

Addressing these and related questions comprise the next steps in researching masculinity, femininity, and the world of work.

FOOTNOTES

<sup>1</sup>Loosely adapted from "The Executive Woman," a newsletter for executive women.

<sup>2</sup>To obtain masculinity and femininity scores from the Broverman Sex-Role Questionnaire, it was necessary to rotate the data on 19 of the stereotypic items in such a way that "7" consistently represented the masculine or feminine pole.

<sup>3</sup>Two stereotypic items from each instrument were omitted from this and subsequent analyses. These were "masculine" and "feminine," which were eliminated to avoid including respondents' subjective definitions of masculinity and femininity in the study. Thus, of the original item pool of 142, 138 were included in the analyses.

<sup>4</sup>All t-tests used in the preparation of this report were two tailed.

REFERENCE NOTES

1. Hinsdale, K. Working women and the cycle of defeat: A theoretical model. Albion, Michigan: Validated Instruction Associates, 1976.
2. Hansen, P. Sex differences in supervision. Paper presented at the meeting of the American Psychological Association, September, 1974.
3. Durning, K. P. and Mumford, S. J. Differential perceptions of organizational climate held by Navy enlisted women and men. (NPRDC TR 76TQ-43). San Diego, Calif.: Navy Personnel Research and Development Center, August, 1976.
4. Kipnis, D. and Kidder, L. Practice, performance, and sex: Sex-role appropriateness, success, and failure as determinants of men's and women's task learning capability (Technical Report #1). Philadelphia, Pa.: University City Science Center, May, 1977.
5. Fitzpatrick, R. and Cole, M. Some characteristics of female and male managers. Pittsburgh, Pa.: Psychological Service of Pittsburgh, November, 1977.

## REFERENCES

Barry, H., Bacon, M. D., and Child, I. L. A cross-cultural survey of some sex differences in socialization. Journal of Abnormal and Social Psychology, 1957, 55, 327-332.

Bartol, K. M. and Butterfield, D. A. Sex effects in evaluating leaders. Journal of Applied Psychology, 1976, 61, 446-454.

Basil, D. C. Women in management. New York, Dunellen Publishing Co., 1972.

Bass, B., Krusell, J., and Alexander, R. Male managers' attitudes toward working women. American Behavioral Scientist, 1971, 59, 241-243.

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42 (2), 155-162.

Bem, S. L. Sex role adaptability: One consequence of psychological androgyny. Journal of Consulting and Clinical Psychology, 1975, 31 (4), 634-643.

Bem, S. L. On the utility of alternative procedures for assessing psychological androgyny. Journal of Consulting and Clinical Psychology, 1977, 45 (2), 196-205.

Bem, S. L. and Bem, D. J. Homogenizing the American woman: The power of an unconscious ideology. In D. J. Bem, Beliefs, Attitudes and Human Affairs. Belmont, California: Brooks/Cole, 1970.

Bem, S. L. and Lenney, E. Sex typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 1976, 33 (1), 48-54.

Binkin, M. and Bach, S. Women and the military. Washington, D.C.: The Brookings Institution, 1977.

Bond, J. R., and Vinacke, W. E. Coalitions in mixed-sex triads. Sociometry, 1961, 24, 61-75.

Bowman, G. W., Worthy, N. B., and Greyser, S. A. Are women executives people? Harvard Business Review, 1965, 43, 14-16.

Broverman, I., Broverman, D., Clarkson, F., Rosenkrantz, P. and Vogel, S. Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 1970, 34 (1), 1-7.

Broverman, I., Vogel, S., Broverman, D., Clarkson, F., and Rosenkrantz, P. Sex-role stereotypes: A current appraisal. Journal of Social Issues, 1972, 28 (2), 59-78.

Campbell, D. Social attitudes and other acquired behavioral dispositions. In S. Koch (ed.), Psychology: A study of a science. New York: McGraw-Hill, 1963.

Constantinople, A. Masculinity-femininity: An exception to the famous dictum? Psychological Bulletin, 1973, 80, 389-407.

Condry, J. and Dyer, S. Fear of success: Attribution of cause to the victim. Journal of Social Issues, 1976, 32 (3), 63-83.

Darley, S. Big-time careers for the little woman: A dual-role dilemma. Journal of Social Issues, 1976, 32 (3), 85-98.

Elman, J. B., Press A., and Rosenkrantz. Sex-roles and self-concepts: Real and ideal. Paper presented at the meeting of the American Psychological Association, Miami, August, 1970.

Epstein, G. F., and Bronzaft, A. Female modesty in aspiration level. Journal of Counseling Psychology, 1974, 21 (1), 57-60.

Fishbein, M. and Ajzen, I. Attitudes towards objects as predictors of single and multiple behavioral criteria. Psychological Review, 1974, 81, 26-43.

Goldberg, P. Are women prejudiced against women? Transaction, 1968, 5, 28-30.

Gordon, F. and Hall, D. Self-image and stereotypes of femininity: Their relationship to women's role conflicts and coping. Journal of Applied Psychology, 1974, 59, 241-243.

Haavio-Mannila, E. Convergences between East and West: Tradition and modernity in sex roles in Sweden, Finland, and the Soviet Union. In M. T. S. Mednick, S. S. Tangri, L. W. Hoffman (eds.) Women and achievement: Social and motivational analyses. Washington, D.C.: Hemisphere, 1975.

Hagen, R. and Kahn, A. Discrimination against competent women. Journal of Applied Social Psychology, 1975, 5 (4), 362-376.

Hennig, M. What happens on the way up. Masters of Business Administration, March, 1971, 8-10.

Hinsdale, K., and Cook, J. Why working fail: The maintenance of sex roles and stereotyping in work groups. Naval Research Reviews, November, 1978 (in press).

Hoffman, L. Early childhood experiences and women's achievement motives. Journal of Social Issues, 1972, 28, 129-156.

Jacobson, M., Antonelli, J., Winning, P., and Opeil, D. Women as authority figures: The use and nonuse of authority. Sex Roles, 1977, 3 (4), 365-375.

Jacobson, M. and Effertz, J. Sex roles and leadership: Perceptions of the leaders and the led. Organizational Behavior and Human Performance, 1974, 12, 383-396.

Jenkin, N. and Vroegh, K. Contemporary concepts of masculinity and femininity. Psychological Reports, 1969, 25, 679-697.

Korman, A. Toward a hypothesis of work behavior. Journal of Applied Psychology, 1970, 54, 31-41.

Loring, R. and Wells, T. Breakthrough: Women into management. New York: Van Nostrand Reinhold, 1972.

McKee, J. and Sherriffs, A. The differential evaluation of males and females. Journal of Personality, 1957, 25, 356-371.

McKee, J. and Sherriffs, A. Men's and women's beliefs, ideals, and self-concepts. American Journal of Sociology, 1959, 64, 356-363.

Miller, A. Role playing: An alternative to deception? A review of the evidence. American Psychologist, 1972, 27, 623-636.

Miller, J., Labovitz, S., and Fry, L. Inequities in the organizational experiences of women and men. Social Forces, 1975, 54 (2), 365-381.

Mischel, W. On the future of personality measurement. American Psychologist, 1977, 32, 246-254.

Morrison, R. and Sebald, M. Personal characteristics differentiating female executive from female nonexecutive personnel. Journal of Applied Psychology, 1974, 59 (5), 656-659.

Neulinger, J. Perceptions of the optimally integrated person: A redefinition of mental health. Proceedings of the 76th Annual Convention of the American Psychological Association, 1968, 553-554.

O'Leary, V. Some attitudinal barriers to occupational aspirations in women. Psychological Bulletin, 1974, 81, 809-826.

Orth, C. D., and Jacobs, F. Women in management: Pattern for change. Harvard Business Review, 1971, 49, 139-147.

Petty, M. and Lee, G. Moderating effects of sex of supervisor and subordinate on relationships between supervisor behavior and subordinate satisfaction. Journal of Applied Psychology, 1975, 60, 624-628.

Polk, B. Male power in the women's movement. Journal of Applied Behavioral Science, 1974, 10, 415-431.

Prather, J. Why can't women be more like men: A summary of socio-psychological factors hindering women's advancement in the professions. American Behavioral Scientist, 1971, 15, 39-47.

Putnam, L. and Heinen, J. Women in management: The fallacy of the trait approach. MSU Business Topics, Summer, 1976, 47-53.

Rosen, B. and Jerdee, T. H. The influence of sex-role stereotypes on evaluations of male and female supervisory behavior. Journal of Applied Psychology, 1973, 57, 44-48.

Rosen, B. and Jerdee, T. H. Sex stereotyping in the executive suite. Harvard Business Review, 1974, 52, 45-58.

Rosen, B. and Jerdee, T. H. Effects of employee's threatening versus pleading appeals on managerial evaluations of grievances. Journal of Applied Psychology, 1975, 60, 442-445.

Rosenkrantz, P., Vogel, S., Bee, H., Broverman, I., and Broverman, D. Sex-role stereotypes and self-concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32, 287-295.

Roussell, C. Relationship of sex of department head to department climate. Administrative Science Quarterly, 1974, 19, 211-220.

Ruhe, J. and Guerin, V. Differences in attitudes, behavior, and effectiveness of female and male leaders. Proceedings of the Eastern Academy of Management, May, 1977, 10-15.

Schein, V. The woman industrial psychologist: Illusion or reality? American Psychologist, 1971, 26, 708-712.

Schein, V. Fair employment of women through personnel research. Personnel Journal, 1972, 51, 330-335.

Schein, V. The relationship between sex role stereotypes and requisite management characteristics. Journal of Applied Psychology, 1973, 57 (2), 95-100.

Schein, V. Relationships between sex role stereotypes and requisite management characteristics among female managers. Journal of Applied Psychology, 1975, 60 (3), 340-344.

Sherman, J. Social values, femininity, and the development of female competence. Journal of Social Issues, 1976, 32 (3), 181-195.

Sherriffs, A. and Jarrett, R. Sex differences in attitudes about sex differences. Journal of Psychology, 1953, 35, 161-168.

Silverman, I., Shulman, A., and Weisenthal, D. The experimenter as a source of variance in psychological research: Modeling and sex effects. Journal of Personality and Social Psychology, 1972, 21, 219-227.

Smith, S. Age and sex differences in children's opinions concerning sex differences. Journal of Genetic Psychology, 1939, 4, 17-25.

Spence, J. and Helmreich, R. Who likes competent women? Competence, sex-role congruence of interests, and subjects' attitudes toward women as determinants of interpersonal attraction. Journal of Applied Social Psychology, 1972, 2, 197-213, (a).

Spence, J. and Helmreich, R. Masculinity and Femininity. Austin, Texas: Texas Press. 1978.

Spence, J., Helmreich, R., and Stapp, J. The personal attributes questionnaire: A measure of sex-role stereotypes and masculinity-femininity. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 127.

Spence, J., Helmreich, R., and Stapp, J. Ratings of self and peers on sex-role attributes and their relation to self-esteem and conceptions of masculinity and femininity. Journal of Personality and Social Psychology, 1975, 32, 29-39.

Stodgill, R. Handbook of leadership: A survey of theory and research.  
New York: Free Press, 1974.

Stricker, C. Implications of research for psychotherapeutic treatment  
of women. American Psychologist, 1977, 32, 14-22.

Terborg, J. Women in management: A research review. Journal of Applied  
Psychology, 1977, 62, 647-664.

Terborg, J. and Ilgen, D. A theoretical approach to sex discrimination  
in traditionally masculine occupations. Organizational Behavior and Human  
Performance, 1975, 13, 352-376.

Triandis, H. and Davis, E. Race and belief as determinants of behavioral  
intentions. Journal of Personality and Social Psychology, 1965, 2 715-725.

Walberg, H. J. Physics, Femininity, and Creativity. Developmental Psy-  
chology, 1969, 1 (1), 47-54.

Weitz, S. Sex roles: Biological, psychological, and social foundations.  
New York: Oxford University Press, 1972.

Wicker, A. Attitudes versus action! The relationship of verbal and overt  
behavioral responses to attitude objects. Journal of Social Issues, 1969,  
25, 41-78.

Zellman, G. The role of structural factors in limiting women's institutional  
participation. Journal of Social Issues, 1976, 32 (3), 33-46.

DISTRIBUTION LIST

Navy

Office of Naval Research (Code 452) 800 N. Quincy St. Arlington, Virginia 22217	Training Officer Human Resource Management Center Naval Training Center (Code 9000) San Diego, California 92133
Defense Documentation Center Accessions Division ATTN: DDC-TC Cameron Station Alexandria, Virginia 22314	Scientific Director Naval Health Research Center San Diego, California 92152
Psychologist ONR Branch Office Bldg. 114, Section D 666 Summer St. Boston, Massachusetts 02210	Navy Personnel R&D Center San Diego, California 92152
Commanding Officer Naval Research Laboratory Code 2627 Washington, D. C. 20375	Lt. Rebecca G. Vinson, USN Rating Assignment Officer Bureau of Naval Personnel (Pers 5151) Washington, D. C. 20370
Science and Technology Division Library of Congress Washington, D.C. 20540	Chief of Naval Technical Training Code 0161 NAS Memphis (75) Millington, Tennessee 38054
Psychologist ONR Branch Office 536 S. Clark St. Chicago, Illinois 60605	Human Resource Management Center Box 23 FPO New York 09510
Psychologist ONR Branch Office 1030 E. Green St. Pasadena, California 91106	Human Resource Management Detachment Naples Box 3 FPO New York 09521
Bureau of Naval Personnel Scientific Advisor (Pers Or) Washington, D. C. 20370	Human Resource Management Detachment Rota Box 41 FPO New York 09540
Bureau of Naval Personnel (Pers 6) Assistant Chief of Naval Personnel for Human Resource Management Washington, D. C. 20370	Human Resource Management Center Norfolk 5621-23 Tidewater Dr. Norfolk, Virginia 23511
Bureau of Naval Personnel (Pers 6a3) Human Resource Management Washington, D.C. 20370	Human Resource Management Center Building 304 Naval Training Center San Diego, California 92133
	Office of Naval Research (Code 200) Arlington, Virginia 22217

ACCS Research & Program Development  
Chief of Naval Education & Training (N-5)  
Naval Air Station  
Pensacola, Florida 32508

Director  
Program Management  
ARPA, Room 813  
1400 Wilson Blvd.  
Arlington, Virginia 22209

Human Resource Management School  
Naval Air Station Memphis (96)  
Millington, Tennessee 38054

Director  
Cybernetics Technology Office  
ARPA, Room 625  
1400 Wilson Blvd.  
Arlington, Virginia

Bureau of Naval Personnel (Pers 65)  
Washington, D.C. 20370

Office of the Deputy Chief of  
Staff for Personnel, Research  
Office  
ATTN: DAPE-PBR  
Washington, D.C. 20310

Director, Human Resource Training Dept.  
Naval Amphibious School  
Little Creek  
Naval Amphibious Base  
Norfolk, Virginia 23521

Army Research Institute  
5001 Eisenhower Ave.  
Alexandria, Virginia 22333

Naval Material Command  
Management Training Center (NMAT 09M32)  
Room 150 Jefferson Plaza, Bldg. #2  
1421 Jefferson Davis Highway  
Arlington, Virginia 20360

Air Force  
AFOSR/NL (Dr. Fregly)  
Building 410  
Bolling AFB  
Washington, D.C. 20332

Commanding Officer  
HRMC Washington  
1300 Wilson Blvd.  
Arlington, Virginia 22209

Military Assistant for Human  
Resources  
OAD (E&LS) CDDR&E  
Pentagon 3D129  
Washington, D.C. 20301

Head, Research & Analysis Branch  
Navy Recruiting Command (Code 434)  
801 N. Randolph St., Room 8001  
Arlington, Virginia 22203

Marine Corps

Dr. William S. Maynard  
U.S. Naval Academy  
Department of Leadership & Law  
Annapolis, Maryland 21402

Dr. A. L. Slafkosky  
Code RD-1  
HQ U.S. Marine Corps  
Washington, D.C. 20380

CAPT Donald F. Parker, USN  
Management Department  
U.S. Naval War College  
Newport, Rhode Island 02840

Commandant of the Marine Corps  
(Code MPI-20)  
Washington, D.C. 20380

Dr. Myron M. Zajkowski  
Senior Scientist  
Naval Training Analysis and  
Evaluation Group  
Orlando, Florida 32813

Coast Guard

Superintendent  
Naval Postgraduate School  
Monterey, California 93940

Joseph J. Cowan  
Chief, Psychological Research  
Branch  
U.S. Coast Guard (G-P-1/2/62  
Washington, D.C. 20590

Army

Principal Investigators

Dr. Earl A. Alluisi  
Performance Assessment Laboratory  
Old Dominion University  
Norfolk, Virginia 23508

Dr. James A. Bayton  
Department of Psychology  
Howard University  
Washington, D. C. 20001

Dr. H. Russell Bernard  
Department of Sociology  
and Anthropology  
West Virginia University  
Morgantown, West Virginia 26506

Dr. Arthur Blaiwes  
Human Factors Laboratory  
Code N-71  
Naval Training Equipment Center  
Orlando, Florida 32813

Dr. David G. Bowers  
Institute for Social Research  
P.O. Box 1248  
University of Michigan  
Ann Arbor, Michigan 48106

Dr. Norman G. Dinges  
The Institute of Behavioral Sciences  
250 Ward Ave. - Suite 226  
Honolulu, Hawaii 96814

Dr. J. Richard Hackman  
School of Organization and  
Management  
56 Hillhouse Ave.  
Yale University  
New Haven Connecticut 06520

Dr. Asa G. Hilliard, Jr.  
The Urban Institute for  
Human Services, Inc.  
P. O. Box 15068  
San Francisco, California 94115

Dr. Edwin Hollander  
Department of Psychology  
State University of New York at Buffalo  
4230 Ridge Lea Rd.  
Buffalo, New York 14226

Dr. Dorothy McBride Kipness  
University City Science Center  
3624 Science Center  
Philadelphia PA 19104

Dr. Faris Kirkland  
University City Science Center  
Center for Social Development  
3624 Science Center  
Philadelphia, PA. 19104

Dr. Arthur L. Korotkin  
Vice President and Director  
Washington Office  
Richard A. Gibboney Asso., Inc.  
10605 Concord St.-Suite 203A  
Kensington, Maryland 20795

Dr. Edward E. Lawler  
Battelle Human Affairs Research  
Centers  
4000 N.E., 41st St.  
P.O. Box 5395  
Seattle, Washington 98105

Dr. Morgan W. McCall, Jr.  
Center for Creative Leadership  
P.O. Box P-1  
Greensboro, North Carolina 27402

Dr. Peter G. Nordlie  
Human Sciences Research, Inc.  
7710 Old Springhouse Rd.  
McLean, Virginia 22101

Dr. Robert D. O'Connor  
Behavior Design, Inc.  
11212 N. May Ave. -Suite 111  
Oklahoma City, Oklahoma 73120

Dr. Manuel Ramirez  
Systems and Evaluations  
232 Swanton Blvd.  
Santa Cruz, California 95060

Dr. H. Wallace Sinaiko  
Program Director  
Manpower Research & Advisory Services  
Smithsonian Institution  
801 N. Pitt St.-Suite 120  
Alexandria, Virginia 22314

Mrs. Alice I. Snyder  
Anthropological Inquiry Services  
1749 Navaja Lane  
El Cajon, California 92020

Dr. Richard Steers  
Graduate School of Management  
and Business  
University of Oregon  
Eugene, Oregon 97403

Dr. Philip G. Zimbardo  
Department of Psychology  
Stanford University  
Stanford, California 94305

Others

Carolyn M. Elliott, Director  
Center for Research on Women in  
Higher Education and the Professions  
Wellesley College  
Cheever House  
828 Washington St.  
Wellesley, Massachusetts 02181

Allison Gardner  
Project on Human Sexual Development  
300 Longfellow Hall  
13 Appian Way  
Cambridge, Massachusetts 02138

I. K. & Donald M. Broverman  
Worcester State Hospital  
Worcester, Massachusetts 01604

Dr. Sandra Bem  
Dept. of Psychology  
Stanford University  
Stanford, CA 94305

Ms. Mary Cole  
Psychological Services of Pittsburgh  
100 5th Ave.  
Pittsburgh, PA 15229

Dr. Virginia Ellen Schein  
Personnel Research  
Metropolitan Life Insurance Co.  
1 Madison Ave.  
New York, New York 10010

Dr. Virginia O'Leary  
Dept. of Psychology  
Oakland University  
Rochester, Michigan 48063

James R. Terborg  
Dept. of Psychology  
University of Illinois  
Champaign, IL 61820

Stephanie Bennett  
Dean, Westhampton College  
University of Richmond  
Virginia 23173